HISTORIC AMERICAN ENGINEERING RECORD

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HAER No. CA-223

Southern Pacific Railroad Shasta Route, Bridge Number 310.58 (Southern Pacific Railroad Shasta Route, Sacramento River 13th Crossing) Milepost 310.58 Sims vicinity Shasta County California

For written information regarding the Shasta Route, please refer to Southern Pacific Railroad Shasta Route (HAER No. CA-220). Note also that all directional references to the bridge are given in Southern Pacific Railroad terminology. Headquartered in San Francisco, the S.P. considered all trains heading *away* from San Francisco to be eastbound, all trains heading *toward* San Francisco to be westbound, regardless of actual cardinal direction. Thus a train heading north from Los Angeles to Portland would be westbound until it passed San Francisco, at which time it would become eastbound. Similarly, the railroad referred to all tunnels and other structures along its lines in the same fashion, with tunnels always having west and east portals. Direction of view in the captions will indicate cardinal direction.

Documentation: 16 photographs (1997) 4 photocopies of historic plans

Ed Andersen, Photographer John Snyder, Field Director

PHOTOGRAPHS

- CA-223-1 West portal of Bridge Number 310.58, contextual view to north from inside Tunnel 15, 210mm lens. Tunnel 15 pierces a toe of Sweetbrier Ridge.
 CA-223-2 West portal of Bridge Number 310.58, contextual view to north from inside Tunnel 15, 380mm lens.
 CA-223-3 West portal of Bridge Number 310.58, view to north, 210mm lens.
 CA-223-4 Axial view of Bridge Number 310.58 from mid-span, view to north, 210mm lens.
 CA-223-5 Oblique contextual view of upstream side of Bridge Number 310.58, showing Tunnel 15 at left, view to southwest, 90mm lens.
- CA-223-6 Oblique view of upstream side of Bridge Number 310.58, 135mm lens. Note ashlar stone masonry abutment built in 1886, Tunnel 15 at left. Heavy vegetation cover, steep banks, and lack of streamside footing precluded full elevation views of the upstream and downstream sides of this bridge.
- CA-223-7 Oblique view of upstream side of Bridge Number 310.58, view to northwest, 90mm lens.

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- CA-223-8 East portal of Bridge Number 310.58, contextual view to south, 210mm lens. This view looks straight through both the bridge and Tunnel 15 beyond, emphasizing the proximity of the two structures.
- CA-223-9 East portal and downstream side of Bridge Number 310.58, oblique contextual view to south-southeast, 210mm lens.
- CA-223-10 East portal of Bridge Number 310.58, view to south, 210mm lens. Magnification of this photo reveals one endpost of Bridge Number 310.35, a 1929 American Bridge Company product, just visible at the right side of the far end of Tunnel 15.
- CA-223-11 Downstream side of Bridge Number 310.58, view to east-northeast, 135mm lens.
- CA-223-12 Oblique view of Bridge Number 310.58, showing downstream side, underfloor details, west abutment, and Tunnel 15 beyond, view to southeast, 135mm lens.
- CA-223-13 Detail, downstream side of Bridge Number 310.58, showing lower chord connection, view to southeast, 210mm lens. The riveted portion of the bottom chord is at left, joined at the pin connection to the eyebars. The vertical intermediate post is a compression member, and is attached to one end of a floor beam that spans transversely below the bridge floor. There are paired diagonals to the left of the intermediate post, with a turnbuckled counter to rising diagonally to the right. The diagonals below the floor are bottom lateral members.
- CA-223-14 Detail, end post/top chord connection point, west end of upstream truss, view to east, 210mm lens. The inclined end post is visible at right, with the top chord at left; the vertical member is a hanger. The latticed portal strut is partially visible at upper right, while paired diagonals approach the connection point from lower left, and a latticed top lateral member is visible above the top chord.
- CA-223-15 Detail, typical "PHŒNIX" rolling mark on intermediate post of downstream truss, view to east, 210mm lens.
- CA-223-16 Detail, cast abutment, built in 1886, view to northeast, 90mm lens.

<u>PHOTOCOPIES OF HISTORIC PLANS</u> (Original plans are held by Union Pacific Railroad, 1416 Dodge Street, Omaha, Nebraska.)

CA-223-17 "Southern Pacific Company - Pacific System, 3 - 180'-6-1/2" c. to c. end pins S. Tr. Thro. Spans, 10th, 11th and 13th Crossings of Sacramento River, also for 1 - 180'-6-1/2" c. to c. end pins S. Tr. Thro. Span, 8th Crossing Sacramento River, The Phænix Bridge Co., Phænixville Pa., Apr. 9th, 1901."

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- CA-223-18 "Erection Plan for 3 180'-6-1/2" c. to c. End Pins S. Track Thro. Spans, 10th, 11th & 13th Crossings of Sacramento River, Pacific System, Southern Pacific Co. Phænix Bridge Co., C.O. #839, Drawing #9, Scale = 1/8" & 1" = 1 ft., Eng'r Chas. Scheidl, Drafts. H.O. McG., April 16th, 1901."
- CA-223-19 "Transverse Bracing, 3 180'-6-1/2" c. to c. End Pins Sing. Tr. Thro' Spans, C.O. 839 10th Crossing Sacramento River, C.O. 840 11th [Crossing Sacramento River], C.O. 841 13th [Crossing Sacramento River], Sacramento Division, So. Pac. Co., The Phœnix Bridge Co., C.O's. 839, 840 & 841, Drawing #4, Eng'r C. Scheidl, Draftsman B. Heald, Scale 1" = 1'-0", April 13th 1901."
- CA-223-20 "Portals and Gusset Plates for 3 180'-6-1/2" c. to c. End Pins Single Track Through Spans, 10th, 11th, & 13th Crossings of Sacramento River, Southern Pacific Co. Sacramento Division, The Phænix Bridge Co., C.O's. 839, 840 & 841, Drawing #12, Engineer C. Scheidl, Draftsman B. Heald, Scale 1-1/2" = 1'0", April 16th, 1901."